

WHAT IS CLAIMED IS:

1. A method of reducing the level of a β -amyloid ($A\beta$) polypeptide in or secreted from a cell, said method comprising contacting said cell with an amount of a *Cimicifuga* extract or of an active fraction thereof effective for reducing the level of said $A\beta$ polypeptide in or secreted from said cell and monitoring the level of said $A\beta$ polypeptide in or secreted from said cell.

5
10 2. The method of claim 1, wherein said *Cimicifuga* extract or active fraction thereof is from *C. racemosa*.

3. The method of claim 2, wherein said *C. racemosa* extract or active fraction thereof is obtained from the root or rhizome of a *C. racemosa* plant.

15 4. The method of claim 2, wherein said *C. racemosa* extract is an ethanolic extract or an aqueous extract.

5. The method of claim 2, wherein an active component within said active fraction is soluble in a solvent selected from the group consisting of methylene dichloride, ethyl acetate and *n*-butanol.

20 6. The method of claim 5, wherein said active component is lipophilic.

7. The method of claim 2, wherein an active component within said active fraction has a molecular weight of less than 10 kD.

25 8. The method of claim 1, wherein said cell is selected from the group consisting of H4 cells, M17 cells, 293 cells, Chinese hamster ovary (CHO) cells, primary fibroblasts, C6, primary neuronal, primary mixed brain cultures, Daoy, SK-N-SH, SK-N-AS and SK-N-Fl.

9. The method of claim 1, wherein said reduction in the level of said A β polypeptide is due to decreased production of said A β polypeptide or increased catabolism of said A β polypeptide.

5 10. The method of claim 1, wherein said level of said A β polypeptide is reduced by at least 10% compared to the level of said A β polypeptide in or secreted from a corresponding cell not contacted with said extract or active fraction thereof.

10 11. The method of claim 1, wherein said level of said A β polypeptide is reduced by at least 25% compared to the level of said A β polypeptide in or secreted from a corresponding cell not contacted with said extract or active fraction thereof.

15 12. The method of claim 1, wherein said level of said A β polypeptide is reduced by at least 50% compared to the level of said A β polypeptide in or secreted from a corresponding cell not contacted with said extract or active fraction thereof.

13. The method of claim 1, wherein said level of said A β polypeptide is reduced by at least 80% compared to the level of said A β polypeptide in or secreted from a corresponding cell not contacted with said extract or active fraction thereof.

20 14. The method of claim 1, wherein said A β polypeptide is A β 40.

15. The method of claim 1, wherein said A β polypeptide is A β 42.

25 16. The method of claim 1, wherein said reduction is preferential for A β 42.

17. The method of claim 1, wherein said extract or active fraction thereof has no significant effect on the level of one or more of APP, CTF α , CTF β , or sAPP α .

30 18. A method for reducing the level of an A β polypeptide in a mammal, said method comprising administering an amount of a *Cimicifuga* extract or an active fraction

thereof to said mammal effective for reducing the level of said A β polypeptide and monitoring the level of said A β polypeptide in said mammal.

19. The method of claim 18, wherein said extract or active fraction thereof is administered to said mammal orally, intravenously, intracranially, intracerebrally, subcutaneously, intramuscularly, intranasally or intraperitoneally.

20. The method of claim 18, wherein said mammal is a rodent.

10 21. The method of claim 20, wherein said rodent is a mouse.

22. The method of claim 21, wherein said mouse expresses an APP carrying a Swedish mutation.

15 23. The method of claim 22, wherein said mouse is a Tg2576 mouse.

24. A method of treating a mammal having AD or at risk to develop AD, said method comprising administering an amount of a *Cimicifuga* extract or an active fraction thereof to said mammal effective for treating or preventing AD in said mammal.

20 25. A method of producing an active fraction of a *Cimicifuga* extract, wherein said active fraction reduces the level of an A β polypeptide upon contact with a cell producing said A β polypeptide, said method comprising:

obtaining an extract of *Cimicifuga* plant material;

25 size-fractionating said extract through a filter to obtain an active fraction, wherein said active fraction comprises active components having a molecular weight of less than about 10 kD; and

testing said active fraction to confirm that said active fraction reduces the level of said A β polypeptide upon contact with said cell producing said A β polypeptide.

26. A method of producing an active fraction of a *Cimicifuga* extract, wherein said active fraction reduces the level of an A β polypeptide upon contact with a cell producing said A β polypeptide, said method comprising:

obtaining an extract of *Cimicifuga* plant material;

5 extracting said *Cimicifuga* extract with hexane, thereby producing a hexane-soluble fraction and a hexane-insoluble fraction; and

testing said hexane-insoluble fraction to confirm that said hexane-insoluble fraction reduces the level of said A β polypeptide upon contact with said cell producing said A β polypeptide.

10

27. The method of claim 26, wherein said hexane is *n*-hexane.

28. The method of claim 26, further comprising:

extracting said hexane-insoluble fraction with a dichloroalkane, thereby 15 producing a dichloroalkane-soluble fraction and a dichloroalkane-insoluble fraction, wherein said dichloroalkane-soluble fraction reduces the level of said A β polypeptide upon contact with said cell producing said A β polypeptide.

29. The method of claim 28, wherein said dichloroalkane is methylene dichloride.

20

30. The method of claim 28, further comprising:

extracting said dichloroalkane-soluble fraction with an alkylacetate, thereby 25 producing an alkylacetate-soluble fraction and an alkylacetate-insoluble fraction, wherein said alkylacetate-soluble fraction reduces the level of said A β polypeptide upon contact with said cell producing said A β polypeptide.

31. The method of claim 30, wherein said alkylacetate is ethyl acetate.

32. The method of claim 30, further comprising:

extracting said alkylacetate-soluble fraction with an alcohol, thereby 30 producing an alcohol-soluble fraction and an alcohol-insoluble fraction,

wherein said alcohol-soluble fraction reduces the level of said A β polypeptide upon contact with said cell producing said A β polypeptide.

33. The method of claim 32, wherein said alcohol is *n*-butanol.

5

34. The method of claim 26, further comprising concentrating said *Cimicifuga* extract prior to said extraction with hexane, wherein said concentrating comprises lyophilizing said *Cimicifuga* extract.

10 35. A composition, said composition comprising:

an active fraction of a *Cimicifuga* extract and a pharmaceutically acceptable carrier, wherein said active fraction reduces the level of an A β polypeptide upon contact with a cell producing said A β polypeptide.

15 36. An article of manufacture, said article comprising:

an active fraction of a *Cimicifuga* extract, wherein said active fraction reduces the level of an A β polypeptide upon contact with a cell producing said A β polypeptide;

a pharmaceutically acceptable carrier; and

packaging material, wherein said packaging material contains a label or

20 package insert indicating that said composition is effective for reducing the level of an A β polypeptide.